HUIMIN XU

Education

PH.D. in Information Studies, University of Texas at Austin, US	Aug. 2021-present
M.A. in School of Journalism and Communication, Nanjing University, China	Sep. 2018-June 2021
B.A. in School of Information Management, Nanjing University, China	Sep. 2014-June 2018

Research Interests

Computational Social Science, Science of Science, Human AI Collaboration [google scholar]

Equality in Academic Environments
- Investigate how steep hierarchies harm underrepresented groups in 30 million scientific teams using advanced network analysis, and AI explainable techniques
- Explore how leadership within team hierarchies shapes the retention of underrepresented groups leveraging methods like regression analysis and propensity score matching
- Identify strategies to support inclusivity, diversity, equity in academic environments

Human AI Collaboration
- Apply LLMs to analyze qualitative data from interviews with healthcare professionals and patients
- Create multi-agent LLMs to identify common themes, simulate the feedback loop and improve outcomes through interactions
- Improve Human AI collaboration that allow healthcare experts to interact with LLMs effectively

Data Storytelling in Public Library
- Conduct user interviews and focus groups across six public libraries in the US to gather qualitative insights on library data usage and challenges
- Highlight the broader challenge of synthesizing large datasets into coherent narratives that advocate for the vital role of libraries in the community
- Identify and implement actionable strategies to enhance data storytelling in public libraries, utilizing data visualization tools, and qualitative analysis.

Journal Articles

- Yang, Y., Zhang, C., **Xu, H.**, Bu, Y., Liu, M., & Ding, Y. (2025). Gender differences in dropout rate: From field, career status, and generation perspectives. Journal of Informetrics, 19(1), 101615.
- Yang, Y., Zhang, C., **Xu, H.**, Bu, Y., Liu, M., & Ding, Y. (2024). Unveiling the loss of exceptional women in science. *Information Processing & Management*, *61*(6), 103829.
- Yang, A. J., **Xu, H.,** Ding, Y., & Liu, M. (2024). Unveiling the dynamics of team age structure and its impact on scientific innovation. *Scientometrics*, 1-22.
- **Xu, H.,** Liu, M., Bu, Y., Sun, S., Zhang, Y., Zhang, C., ... & Ding, Y. (2024). The impact of heterogeneous shared leadership in scientific teams. *Information Processing & Management*, 61(1), 103542.
- **Xu, H.**, Bu, Y., Liu, M., Zhang, C., Sun, M., Zhang, Y., ... & Ding, Y. (2022). Team power dynamics and team impact: New perspectives on scientific collaboration using career age as a proxy for team power. *Journal of the Association for Information Science and Technology*, 73(10), 1489-1505.
- **Xu, H.**, Zhang, Z., Wu, L., & Wang, C. J. (2019). The Cinderella Complex: Word embeddings reveal gender stereotypes in movies and books. *PloS One*, 14(11), e0225385.

Conference Articles

- **Xu, H.** (2024). Beyond a number game: Flat structures foster minority inclusion in diverse scientific teams. In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL) 2024, Doctoral Consortium.
- **Xu, H**., Song, M., Saar-Tsechansky M., & Ding, Y. (2023). Using Explainable AI to Understand Team Formation and Team Impact. 86th Annual Meeting of the Association for Information Science and Technology (ASIS&T) 2024.
- Liu, M., **Xu, H**., Ding, Y., & Bu, Y. (2023) Unpacking team age structure: Temporal evolution and its relation to team impacts. ISSI 2023 - the 19th International Conference of the International Society for Scientometrics and Informetrics.
- **Xu, H**., … & Ding, Y. (2023). Cross-Team Collaboration and Diversity in the Bridge2AI Project. In Companion Proceedings of the ACM Web Conference 2023 (pp. 790-794).
- **Xu, H**., … & Ding, Y. (2023). Disparity in the Evolving COVID-19 Collaboration Network. iConference 2023.
- **Xu, H.**, & Erk, K. (2023). Detecting public discourse about COVID-19. iConference 2023.

Working Articles

- **Xu, H**., Yi, S., Lim, T., Xu, J., Well, A., Mery, C., ... & Ding, Y. (2025). TAMA: A Human-AI Collaborative Thematic Analysis Framework Using Multi-Agent LLMs for Clinical Interviews. arXiv preprint arXiv:2503.20666. (submitted)
- **Xu, H**., Sun, S., Liu, M., Zhang, C., Bu, Y., Zhang, Y., ... & Ding, Y. (2024) Beyond a Number Game: Flat Structures Foster Minority Inclusion in Diverse Scientific Teams. Available at SSRN 4751297. (Under Review)
- **Xu, H.**, Liu, M., Bu, Y., & Ding, Y. (2024). Empowering the next generation: The role of flat structures in retaining junior researchers. (submitted)
- **Xu, H.**, Strassman, J., Ding, Y., Gray, S., & Saar-Tsechansky, M. (2024). Collaboration paradox: The retention-productivity trade-off for junior women in men-dominated fields. (Manuscript)
- **Xu, H**., Rieh, S. Y., Fleischmann, K., & Lankes, D. (2024). Big Data, Bigger Stories? The Journey from Data to Impact in Public Libraries (submitted).

Conference Presentations and Talks

- The 10th Annual International Conference on Computational Social Science, July 17–20, 2024, Philadelphia, USA.
- The 11th Academic Symposium. ICPP, Dec 27, 2023, Fudan University, Shanghai, China.
- CZI Open Science Impact Mapping Workshop, October 24-27, 2023, California, USA.
- International Society for Scientometrics and Informetrics (ISSI) Team Science and Innovation workshop, July 2-5, 2023, Bloomington, USA.
- PITT Initiative on Computational Social Science at the University of Pittsburgh, Nov 22, 2022, Pittsburgh, USA.
- 13th Annual International Science of Team Science Conference (SciTS). August 2022, online
- The 6th Annual International Conference on Computational Social Science, July 17–20, 2020, Cambridge, Massachusetts, USA.
- The 5th Annual International Conference on Computational Social Science, July 17–20, 2019, Amsterdam, Netherlands.
- The 4th Annual International Conference on Computational Social Science, July 12–15, 2018, Evanston, Illinois, USA.

Grants & Fellowships

- IMLS-funded LADDER Fellowship   2023.09-2024.05 ($30,000)
- Graduate Student Professional Development Travel Grants   2024 ($1,000)

Teaching experience

- Database Management, 2024 (Teaching Assistant, Leading Prompt Engineering and LLM's With LangChain)
- Perspectives on Information, 2024 (Teaching Assistant, Leading Workshop)
- AI literacy, Navarro High School, 2023 (Lecturer)
- Supervised Teaching in Information Studies, 2022 (Leading Introduction to Computational Social Science)

Service

- Peer Reviewers: Information Processing & Management | Humanities and Social Sciences Communications | Scientometrics | Quality & Quantity | iconference | asis&t | ic2s2
- Committee: UT ischool Colloquium Committee | UT Student Ambassadors GPT Asia | Science of Team Science 2025 Program Committee | Team Science Training Inventory Co-Leads